

chromosome, is present in the Y; however, no donor site is visible. Admittedly, the extra segment could be an autosomal fragment which influences secondary sex characteristics. However, if this were a translocated segment from an autosome producing an unbalanced translocation, more profound and diverse manifestations would be anticipated. The possibility of a Y isochromosome must be entertained, but the morphologic characteristics of the isochromosomes are not present. Persons containing the YY chromosome complement as described by Price and coworkers<sup>7</sup> have not manifested the breast changes which occurred in this patient.

Van Wijck and coworkers,<sup>10</sup> Bender and Gooch<sup>2</sup> and Makino and associates<sup>5</sup> have described karyotypes containing an elongated Y, frequently with hypospermatogenesis, but they made no mention of gynecomastia. It is unfortunate that we are unable to pursue the familial aspects of this problem. It is tempting to speculate that these phenotypic and karyotypic abnormalities are related. We believe, as do Bender and coworkers,<sup>2</sup> that one must be cautious about interpretations associating phenotype with chromosomal variations, especially involving the Y chromosome.

## Summary

An adult male college student sought medical care because of enlarged breasts. Mastectomy was done and the pathologist's report was consistent with gynecomastia. Testicular biopsy show disorganization of spermatogenesis and hypospermia. A large Y chromosome found in the chromosome karyotype was not accompanied by other cytogenetic abnormalities in the proband. Various possibilities as to the origin of the large Y chromosome were considered.

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# Obstruction of Large Bowel Due to Fecaloma

## Successful Medical Treatment in Two Cases

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IT IS IMPORTANT to consider the possibility of a fecaloma in cases of large bowel obstruction. When this diagnosis is correctly made, surgical operation can be averted. The following two cases are illustrative.

CASE 1.—A 50-year-old caucasian woman entered UCLA Medical Center for the 16th time on 30 August 1965 with complaint of crampy lower quadrant pain for four days. She had not had a bowel movement in that time. The patient had had numerous abdominal surgical procedures in the past. On examination a left lower quadrant mass was palpable and high pitched sounds were heard on auscultation. The patient was mildly dehydrated but blood and urine examinations were within normal limits. Clinically, the diagnosis of large bowel obstruction was made and a plain film of the abdomen was obtained which showed a dilated transverse and descending colon with large fecal masses in the transverse colon. A barium enema was given and barium would not pass beyond a sigmoid mass despite elevation of the barium container and manual manipulation (Figure 1A). With air outlining the proximal extent of the mass, it was shown to be an elongated sausage-shaped structure (Figure 1B). On this evidence, supported by the presence of the large fecal

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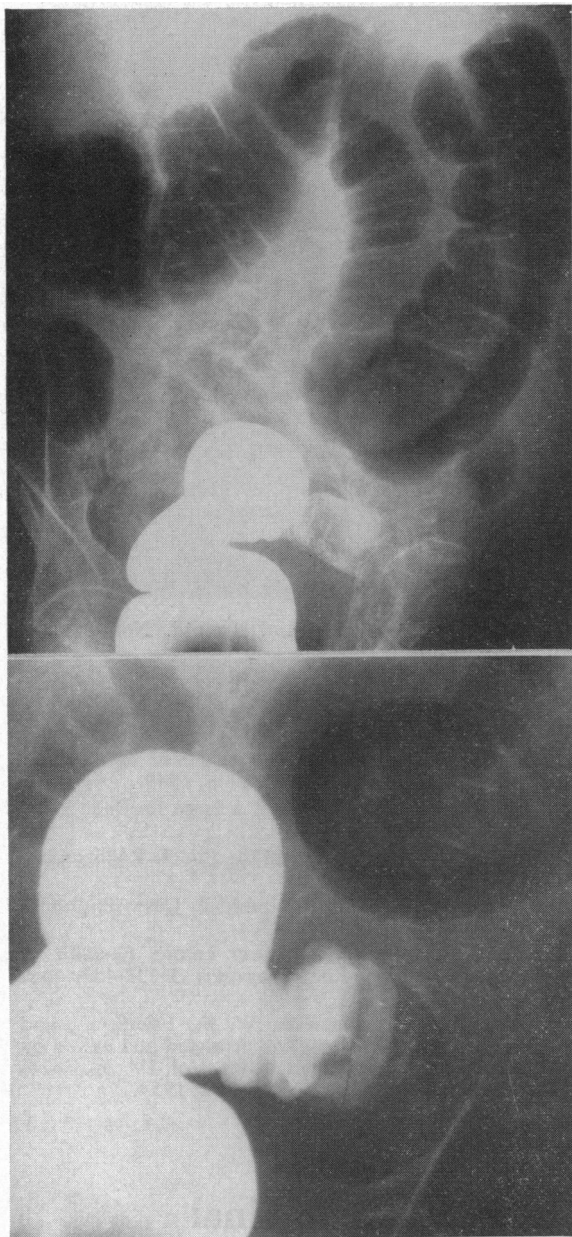


Figure 1. (Case 1)—*Above*, incomplete colon examination. Note obstruction to passage of barium in the sigmoid by the fecalith, with gas and feces distending the colon above the obstruction. The metal sutures are from a previous operation. *Lower*, "spot" film made at same examination shows outline of fecalith between barium distal to it and gas proximally in descending colon.

masses in the transverse colon, a diagnosis of fecaloma was made. Multiple lavema enemas were administered along with oral laxatives, following which the "tumor" was passed. Barium enema examination a week later showed the colon to be within normal limits.

**CASE 2.**—The patient was a 44-year-old man with complaint of abdominal cramps, abdominal distension, nausea and anorexia of four days' duration. He had been chronically constipated and took laxatives regularly. On examination there was left lower quadrant tenderness. An x-ray film showed a rounded mass in the sigmoid region which had been coated with barium from an x-ray examination with barium by mouth one month previously. Barium enema examination was done and the mass was again demonstrated (Figure 2), although the barium was shown to pass beyond it after a temporary delay.

A day or so later, the cramps became more disabling and the patient had not had a bowel movement. He was admitted to a local hospital 29 June 1965. The abdomen was quite tender to palpation, particularly in the left lower quadrant, and active peristalsis was present. Films of the abdomen showed a dilated barium-filled colon above the sigmoid mass. A diagnosis of colon obstruction secondary to a fecal mass was made. A medical regimen, including mineral oil enemas, was instituted and opiates were discontinued. On 1 July a 6 cm ovoid firm scybala consisting of homogeneous inspissated stool was passed. A barium enema film then showed a normal descending and sigmoid colon (Figure 3).

## Discussion

Reports of fecalomas producing obstruction are sparse in the American radiological literature. Childs<sup>2</sup> described a case in 1924 in which the fecal mass had to be manipulated and crushed before it could be expelled. The possibility of fecaloma was not considered in a case reported by Dresser<sup>3</sup> five years later, and the correct diagnosis was not made until the abdomen was opened. Another case in a radiology journal was reported by Feldman,<sup>4</sup> who considered such lesions to be rarely observed. Fecalomas may be quite large and they tend to be round and smooth. They tend to occur in the left colon, particularly in the rectosigmoid region. On occasion, layers of calcium may become encrusted upon them.<sup>5</sup> A diagnosis of fecaloma is supported if the mass in the colon is large, readily movable and not attached to the bowel wall.<sup>1,6</sup> Ordinarily, adjacent mucosal markings should be normal. A number of complications may occur, including ulceration of the bowel mucosa with resultant bleeding. Perforation may also oc-

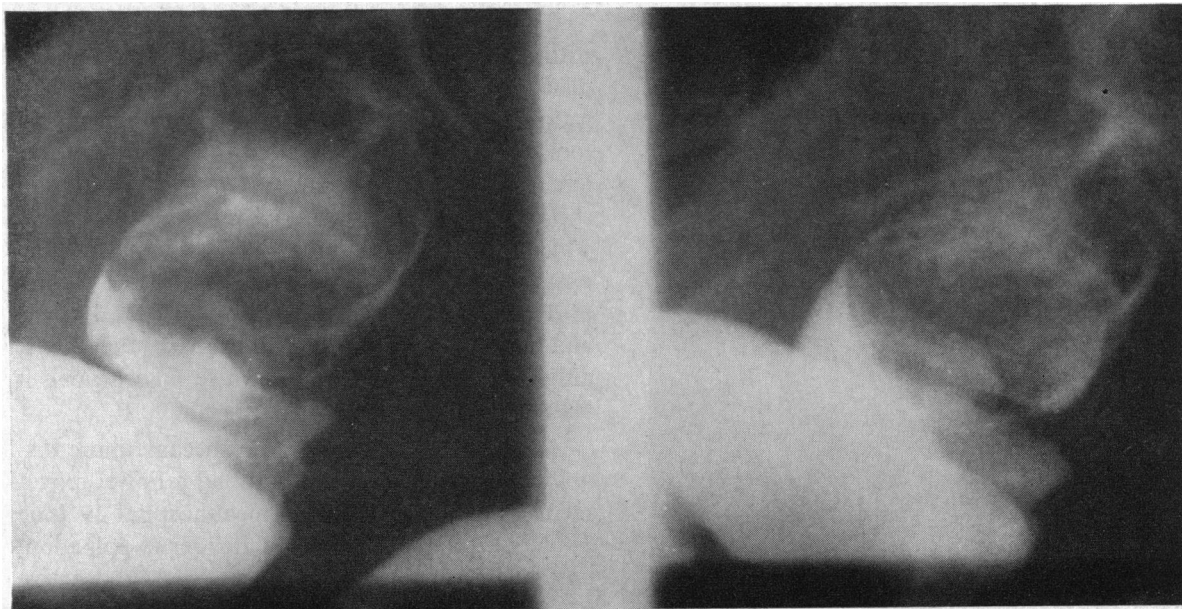


Figure 2. (Case 2)—Spot films showing obstruction in colon at junction of descending and sigmoid. Note sharply rounded contour of inferior margin of obstructing mass, characteristic of fecalith.

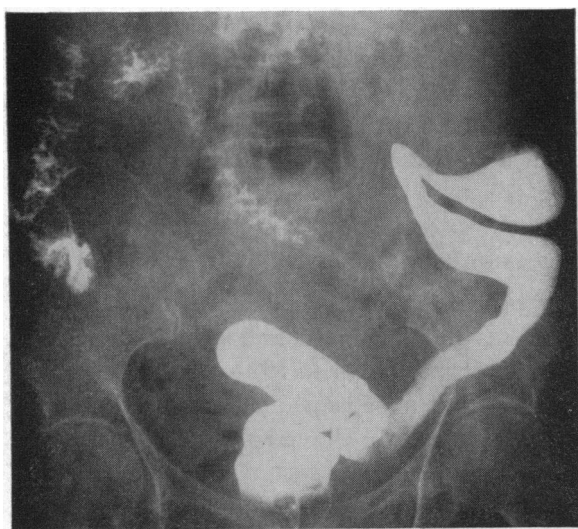


Figure 3. (Case 2)—Barium enema after fecal mass was expelled, showing normal descending and sigmoid colon.

cur.<sup>1</sup> Obstruction is another complication, as in the cases here reported. When the diagnosis is made, laxatives and enemas may be employed. Sometimes, however, a number of days or even weeks may be required for the passage of large fecalomas in the sigmoid or descending colon.<sup>1</sup>

### Summary

Two cases of colon obstruction secondary to fecalomas are described.

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## Interstitial Abdominal Emphysema

(*Pneumatosis Cystoides Intestinalis*)

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PNEUMATOSIS CYSTOIDES intestinalis was first fully described by Bang<sup>1</sup> in 1876. Since that time, reports of about 385 cases have been added to the literature. The entity is now better recognized and 21 reports have appeared in the past five years.

The graphic name of the entity refers to gas-

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